

U.S. Patent Application NAKATSU et al
Serial No. 09/373,544

**VERSION WITH MARKINGS TO SHOW
CHANGES MADE (IN THE CLAIMS)**

1. {TWICE AMENDED} A light -emitting diode comprising:
a semiconductor substrate; and
a layered structure comprising [, made of] an AlGaInP type compound semiconductor material and provided on the semiconductor substrate,
wherein the layered structure comprises:
a light-emitting structure composed of a pair of cladding layers and an active layer for emitting light provided between the pair of cladding layers; and
a current diffusion layer comprising an AlGaInP type material which is lattice-mismatched with the light-emitting structure, wherein a lattice mismatch $\Delta a/a$ of the current diffusion layer with respect to the light-emitting structure defined by the following expression is -1 % or smaller:

$$\Delta a/a = (a_d - a_e)/a_e$$

where a_d is a lattice constant of the current diffusion layer, and a_e is a lattice constant of the light-emitting structure.

14. {ONCE AMENDED} A light-emitting diode, comprising:
a semiconductor substrate; and
a layered structure comprising an AlGaInP type compound semiconductor material provided on the semiconductor substrate, the layered structure comprising:
a light-emitting structure comprising a pair of cladding layers and an active layer for emitting light provided between the pair of cladding layers;
a current diffusion layer comprising an AlGaInP type material which is lattice-mismatched with the light-emitting structure and the semiconductor substrate; and
wherein
the semiconductor substrate is inclined in a [011] direction with respect to a (100) plane thereof.